UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

June 1964

Part II--Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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* Part I - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN
JUNE 1964

Acknowledgments

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U.S. Bureau of Commercial Fisheries Biological Laboratories, La Jolla, California; Honolulu, Hawaii and Seattle, Washington
U.S. Weather Bureau, San Diego, California
U.S. Naval Communication Station Balboa, Fort Amador, Canal Zone
U.S. Weather Bureau Port Meteorological Office, Cristobal, Canal Zone
California Department of Fish and Game R/V N.B. Scofield
Guadalupe Island, Coronado Island, Ensenada, Cedros Island and Almejas Bay by Pedro Mercado of the Universidad Autonoma de Baja California, Ensenada, Mexico
Hopkins Marine Station, Pacific Grove, California by J. P. Balesteri
Inter-American Geodetic Survey by Rene Cortes at Salina Cruz, Mexico; David Ortega at Manzanillo, Mexico; L. A. Peren at Pt. Armuelles, Panama; R. H. Valencia at San Jose, Guatemala; V. E. Castillo at Tumaco, Colombia; G. Tapia at San Cristobal, Galapagos; S. Valenzuela at La Libertad, Ecuador; E. Guerrero at Talara, Peru; Juan Andia at San Juan, Peru
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Kelco Company, San Diego, California
Lifeguard Headquarters, Newport Beach, California
Pacific Oceanographic Group, Nanaimo, British Columbia, by H. J. Hollister from observations by E. A. Hartt at Quatsino Lightstation; J. L. Fraser at Cape St. James Light; B. Stuart at Amphitrite Point Light; W. E. Redlac at Langara Island Light
Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein
Ships Royal Pacific, Viking and West Point

Charts

Figure 1.--Mean sea surface temperatures (°F) derived from approximately 8000 observations. Squares show temperatures at weather-ship stations. Numerals on shore are temperatures at coastal and light-ship stations.

Figure 2.--Deviation of sea surface temperatures (°F) from long term charts of H.O. 225. Hatched areas are colder than mean.

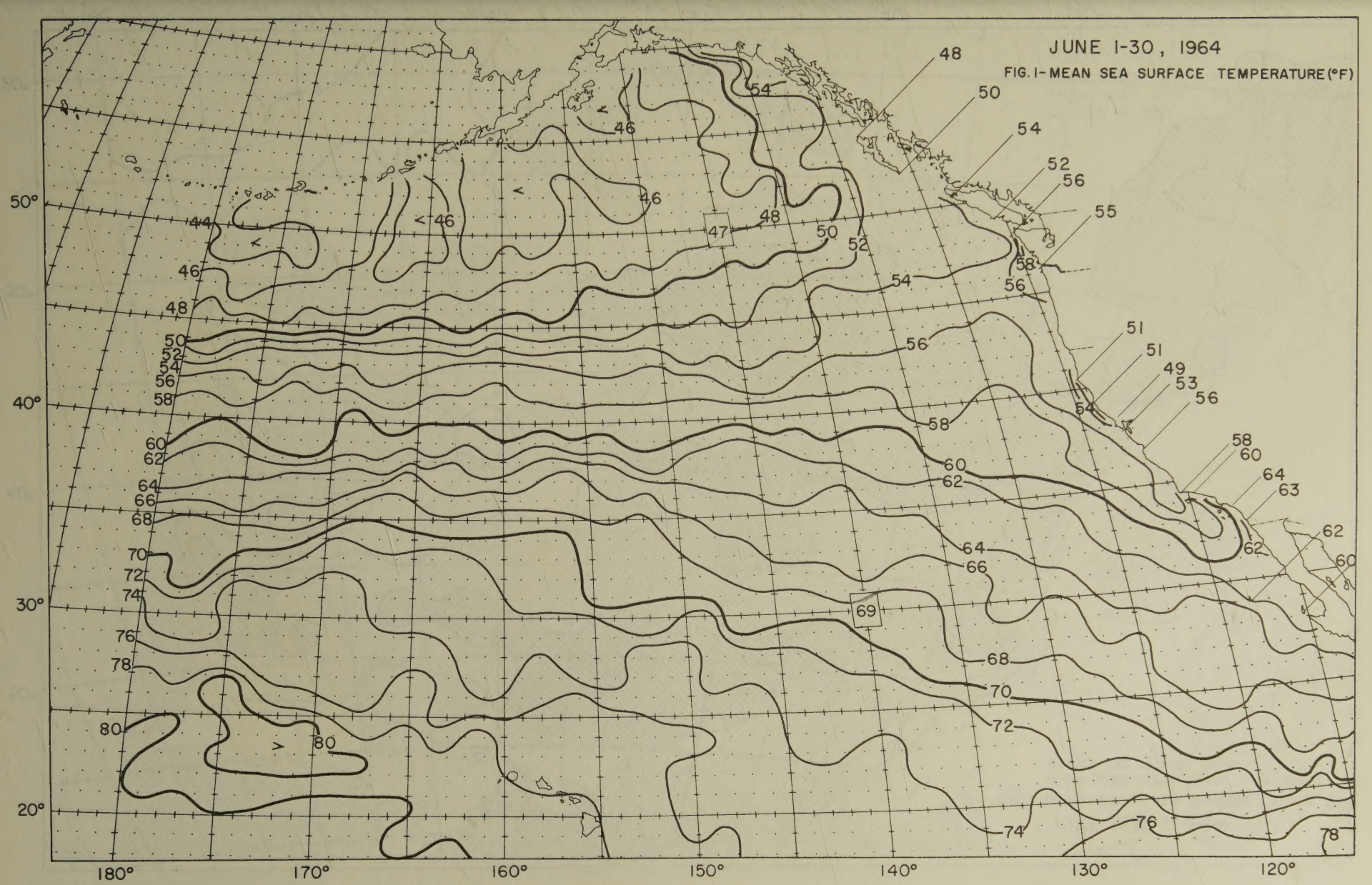
Figure 3.--Deviation of sea surface temperatures (°F) from those of June 1963. Hatched areas are colder than 1963.

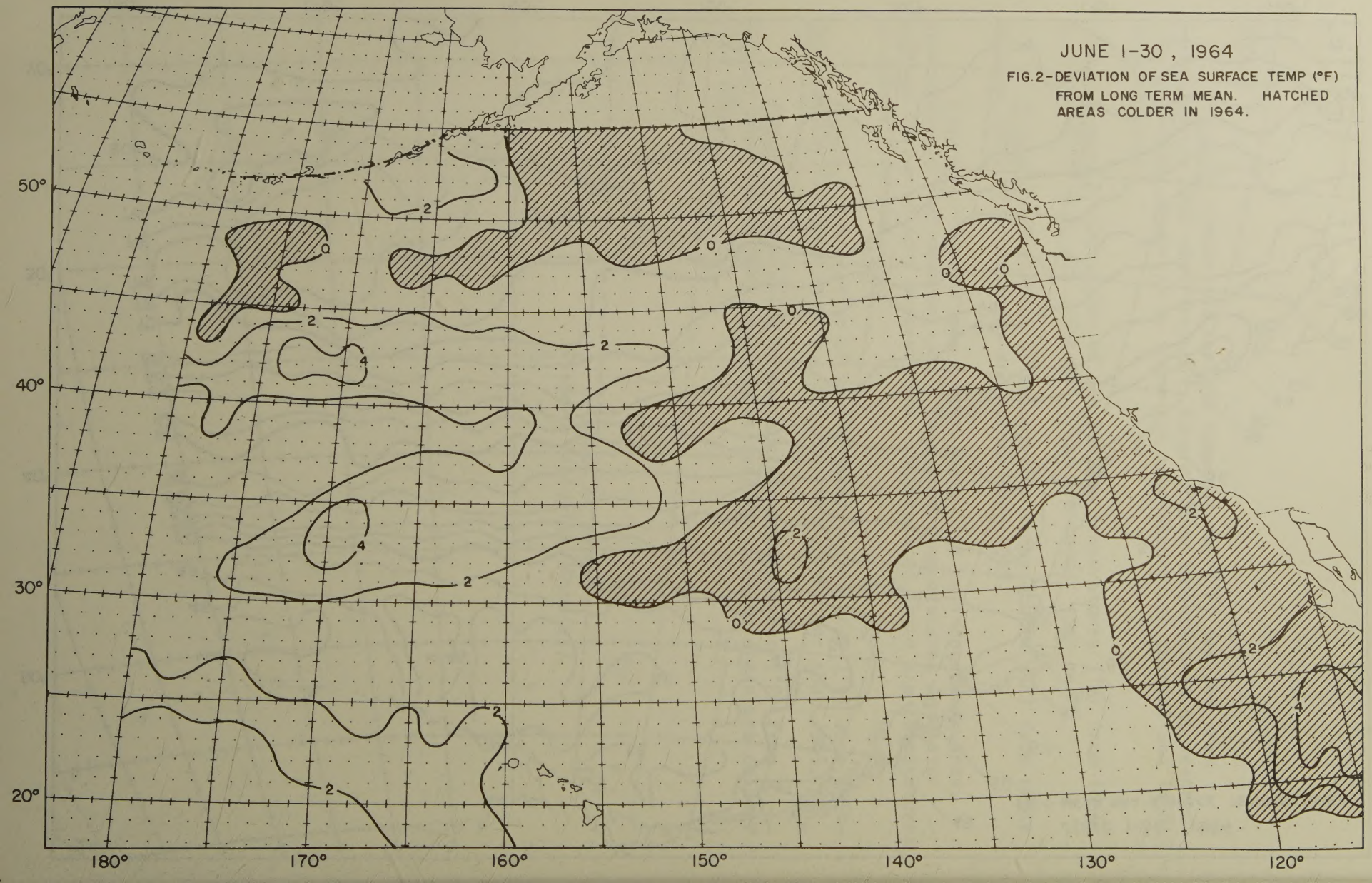
Figure 4.--Sea surface temperatures (°F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal stations.

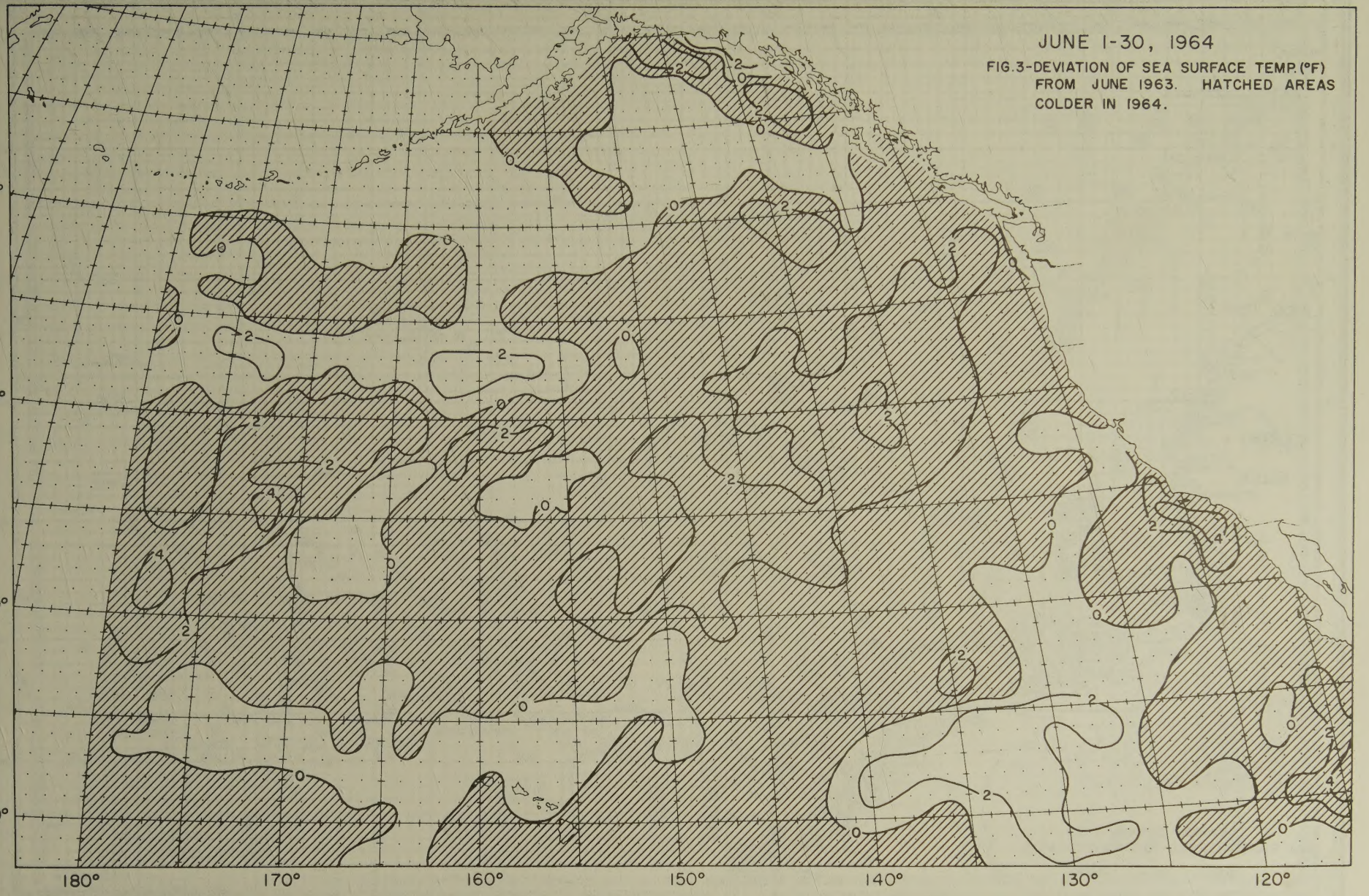
Figure 5.--Deviation of sea surface temperatures (°F) June 1964-June 1963 by 1-degree squares. Shaded areas are colder than 1963.

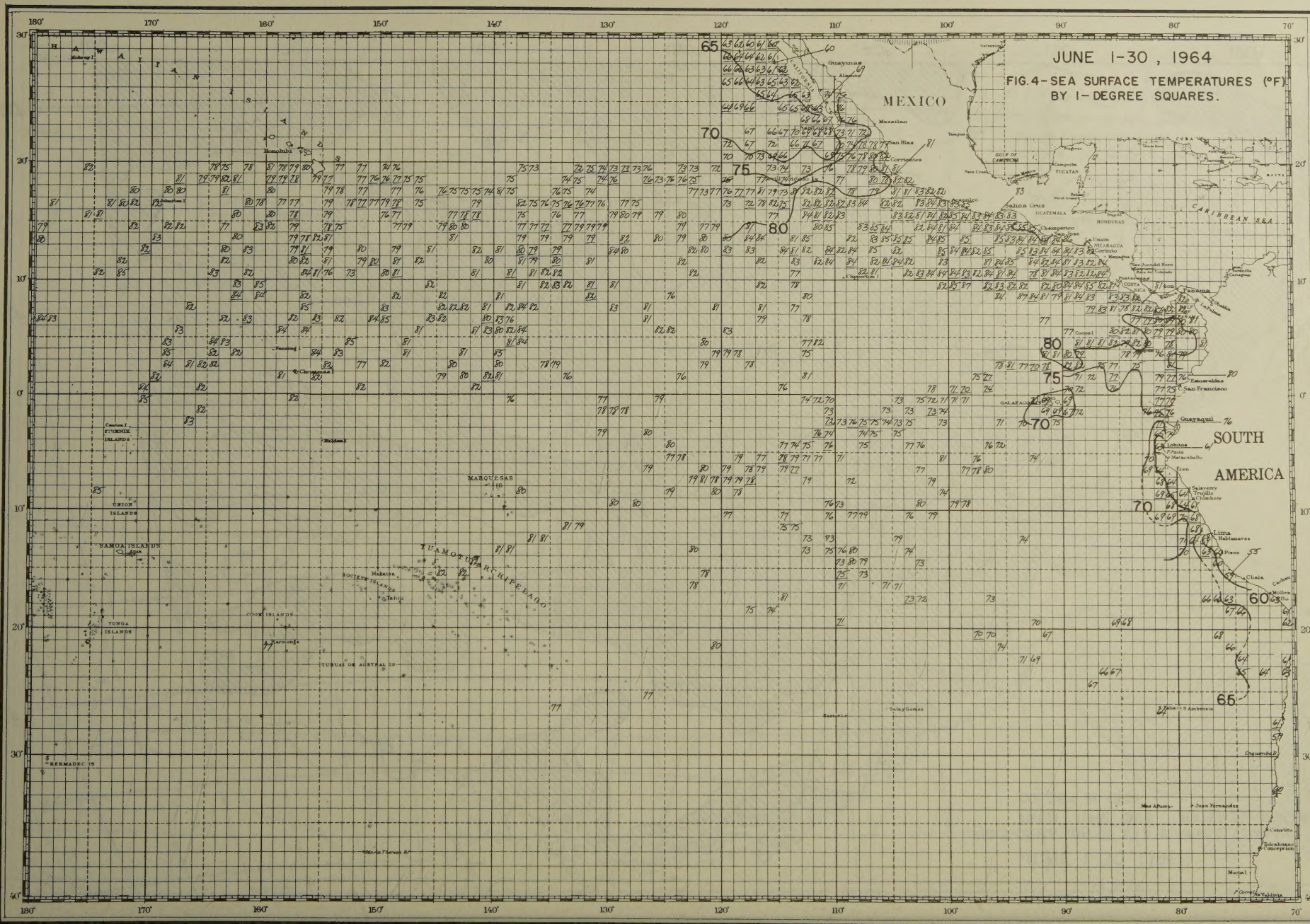
Figure 6.--Deviation of sea surface temperatures (°F) from 12-year mean (1947-1958) by 2-degree squares. Shaded areas are colder than 1963.

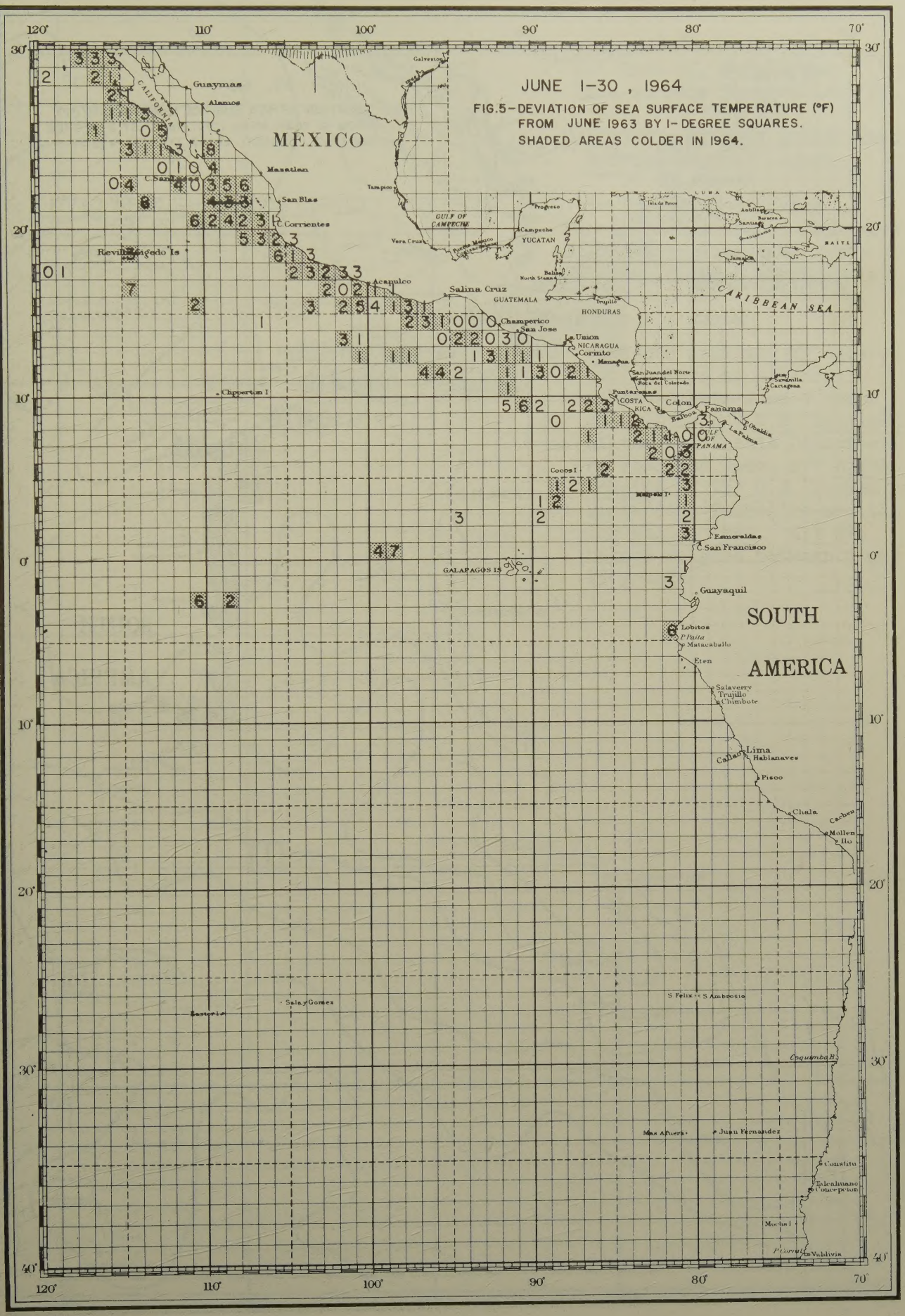
James A. Renner
Fishery Biologist (General)

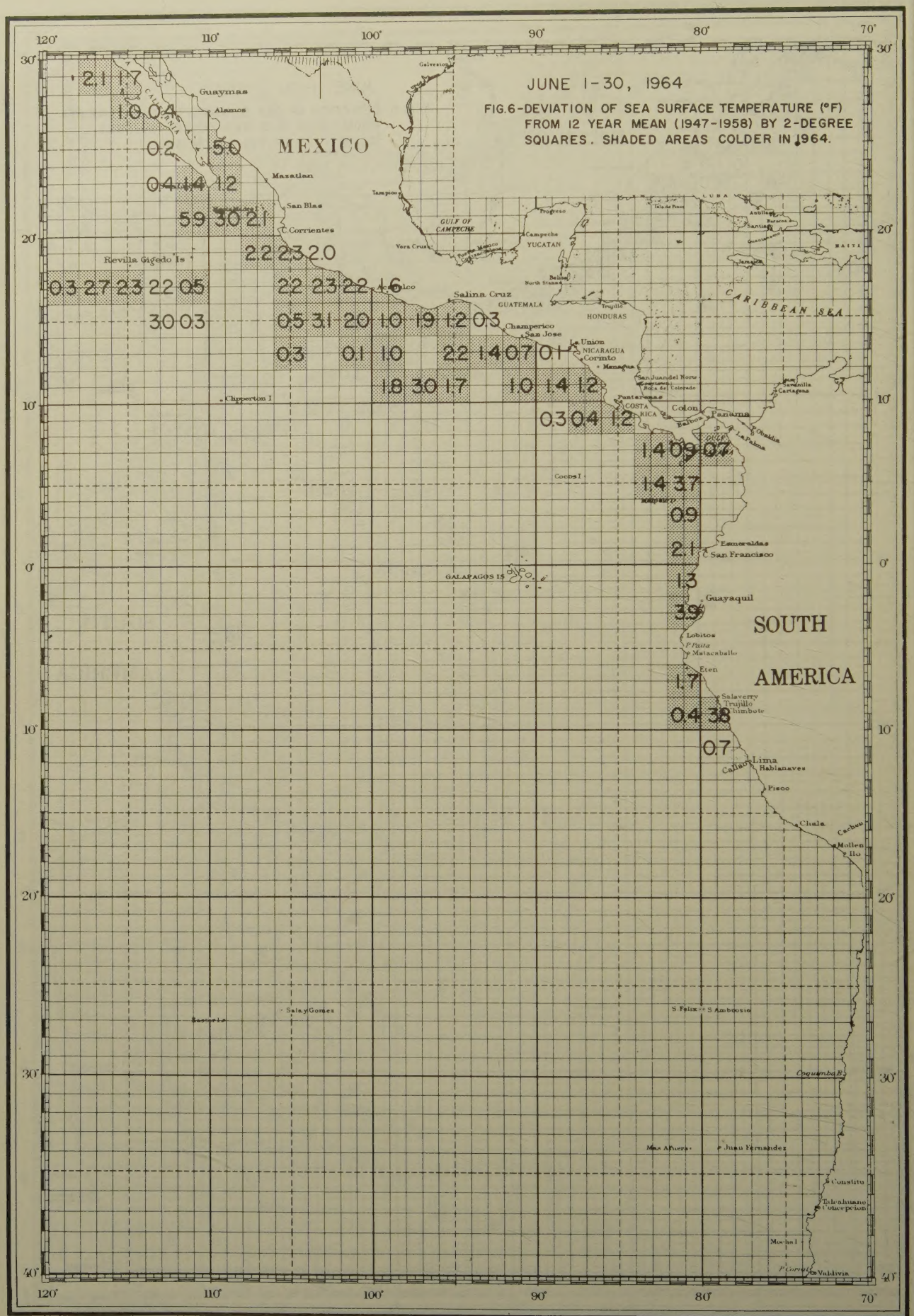

JUNE 1-30, 1964
FIG. 1- MEAN SEA SURFACE TEMPERATURE (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
47
69

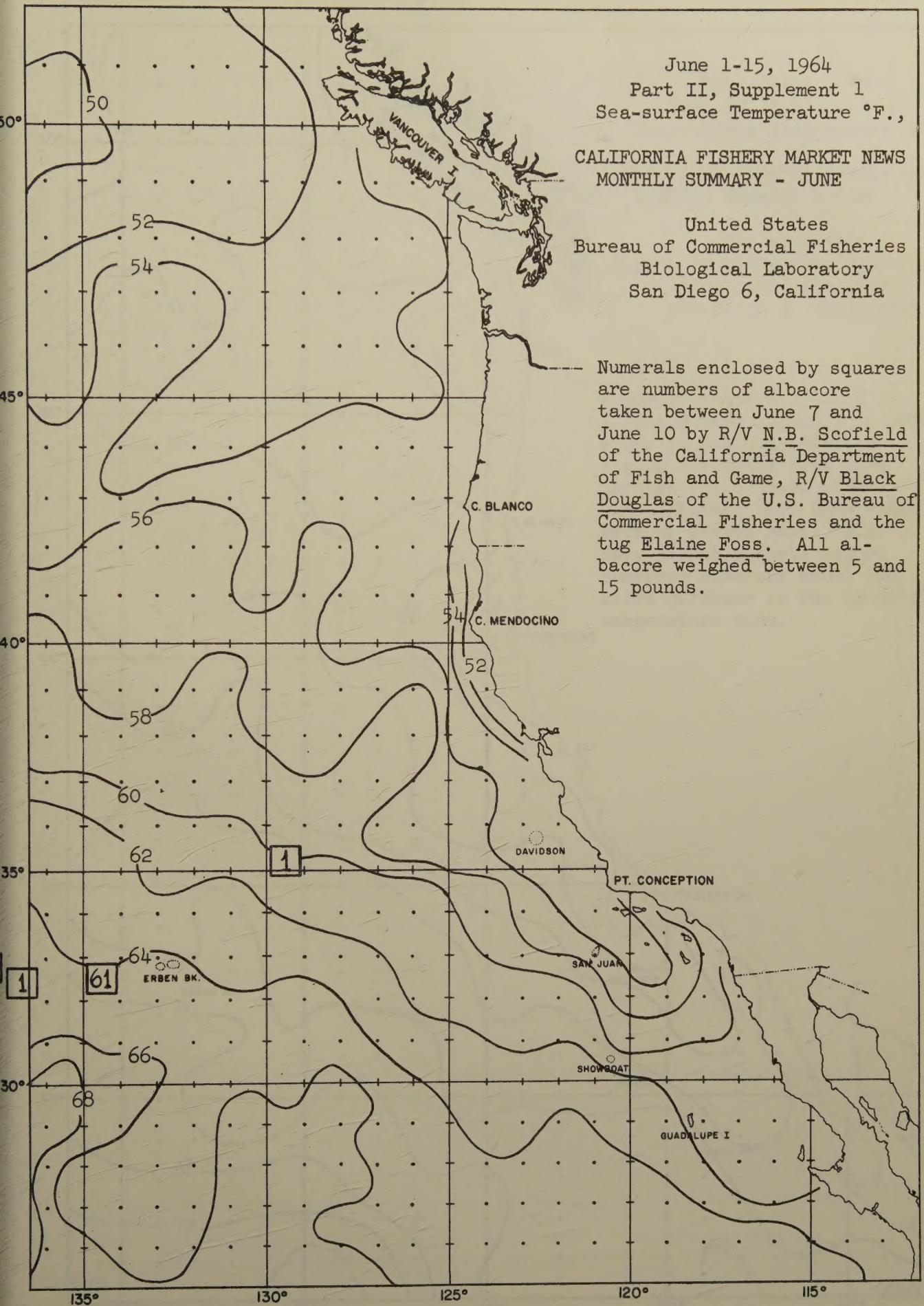

JUNE 1-30 , 1964
FIG.2-DEVIATION OF SEA SURFACE TEMP (°F) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1964.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JUNE 1-30, 1964
FIG.3-DEVIATION OF SEA SURFACE TEMP.(°F) FROM JUNE 1963. HATCHED AREAS COLDER IN 1964.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JUNE 1-30, 1964
FIG. 4 - SEA SURFACE TEMPERATURES (°F) BY 1-DEGREE SQUARES.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
HAWAIIAN ISLANDS
MARQUESAS IS.
TUAMOTU ARCHIPELAGO
SOCIETY ISLANDS
SAMOA ISLANDS
TONGA ISLANDS
COOK ISLANDS
TUBUAI OR AUSTRAL IS.
EASTER I.
JUAN FERNANDEZ
GALAPAGOS IS.
BERMUDEZ IS.
Honolulu
Tahiti
Rarotonga
Guayaquil
Lima
Callao
Valparaiso
Panama
Acapulco
Manzanillo
Salina Cruz
Champerico
Corinto
Balboa
San Francisco
Easter I.
Juan Fernandez
Mas Afuera
Mocha I.


JUNE 1-30, 1964
FIG.5-DEVIATION OF SEA SURFACE TEMPERATURE (°F) FROM JUNE 1963 BY 1-DEGREE SQUARES. SHADED AREAS COLDER IN 1964.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CAMPECHE
GULF OF PANAMA
GALAPAGOS IS
YUCATAN
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
CUBA
HAITI
Guaymas
Alamos
Mazatlan
San Blas
C Corrientes
Revillagigedo Is
Acapulco
Salina Cruz
Champerico
San Jose
La Union
Corinto
Managua
Punta Arenas
Chippertan I
Cocos I
Malpelo I
Esmeraldas
C San Francisco
Guayaquil
Lobitos
Paita
Matacaballo
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Hablanaves
Pisco
Chala
Cachau
Mollendo
Ilo
Sala y Gomez
Easter I
S Felix
S Ambrosio
Coquimba
Mas Afuera
Juan Fernandez
Constitu
Talcahuano
Concepcion
Mocha I
Corral
Valdivia
Galveston
Tampico
Vera Cruz
Progreso
Campeche
Belize
North Stann
Trujillo
Tela de Pinos
Santiago
Jamaica
Barbados
Cartagena
Sabanilla
Panama
Chiriqui
La Palma
Obaldia
San Juan del Norte
Roca del Colorado


JUNE 1-30, 1964
FIG.6-DEVIATION OF SEA SURFACE TEMPERATURE (°F) FROM 12 YEAR MEAN (1947-1958) BY 2-DEGREE SQUARES. SHADED AREAS COLDER IN 1964.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CAMPECHE
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Revilla Gigedo Is
Salina Cruz
Champerico
San Jose
La Union
Cormito
Managua
Chipperton I
Coco I
Panama
Colon
Guayaquil
Lobitos
P Pasta
Matacaballo
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Pisco
Chala
Mollendo
Ilo
Salay Gomez
S Felix
S Ambrosio
Coquimbo
Mas Afuera
P Juan Fernandez
Constito
Talcahuano
Concepcion
Mocha I
Valdivia
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
40°



June 1-15, 1964
Part II, Supplement 1
Sea-surface Temperature °F.,

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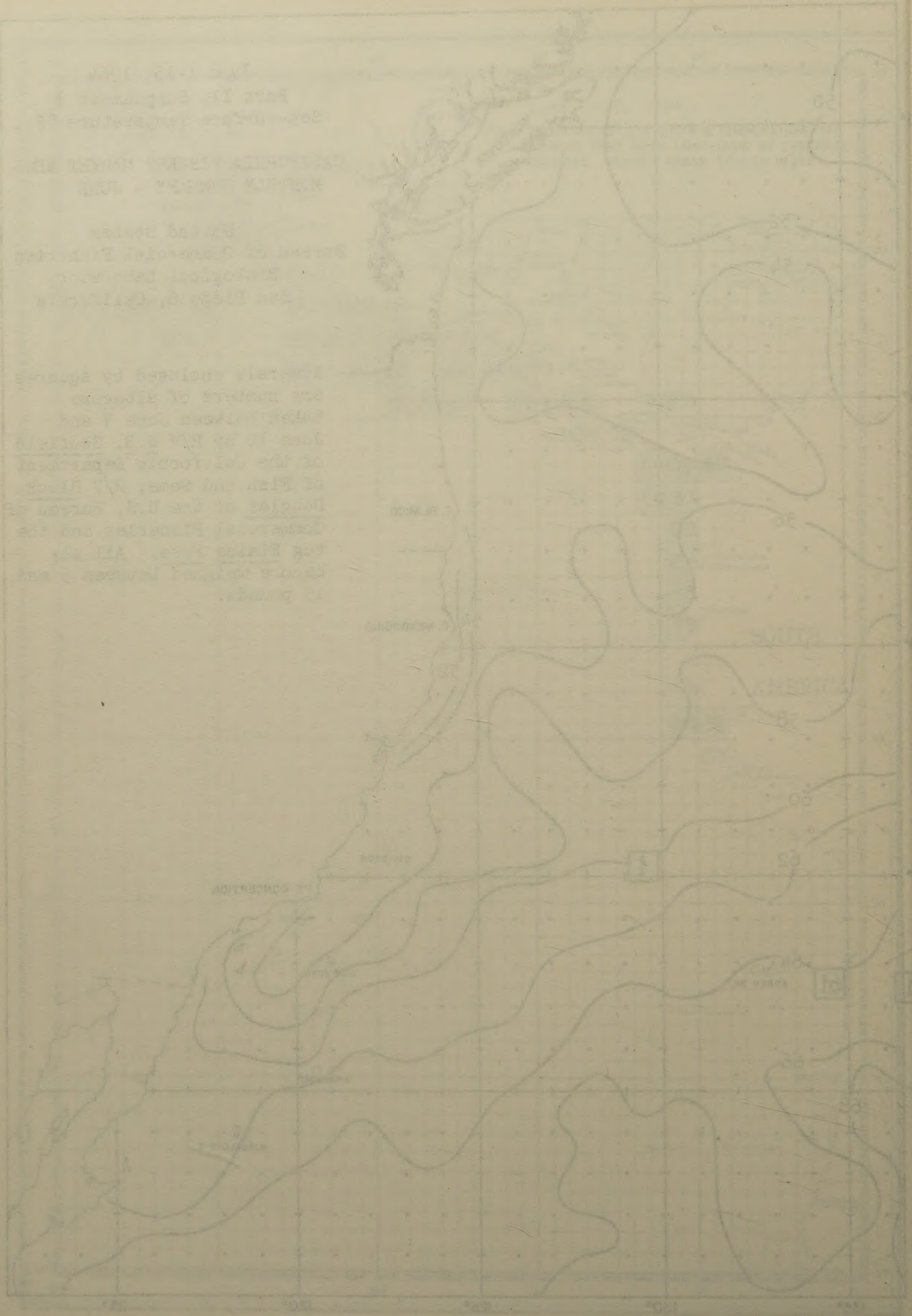
Numerals enclosed by squares are numbers of albacore taken between June 7 and June 10 by R/V N.B. Scofield of the California Department of Fish and Game, R/V Black Douglas of the U.S. Bureau of Commercial Fisheries and the tug Elaine Foss. All albacore weighed between 5 and 15 pounds.



June 16-30, 1964
Part II, Supplement 2
Sea-surface Temperature °F.,

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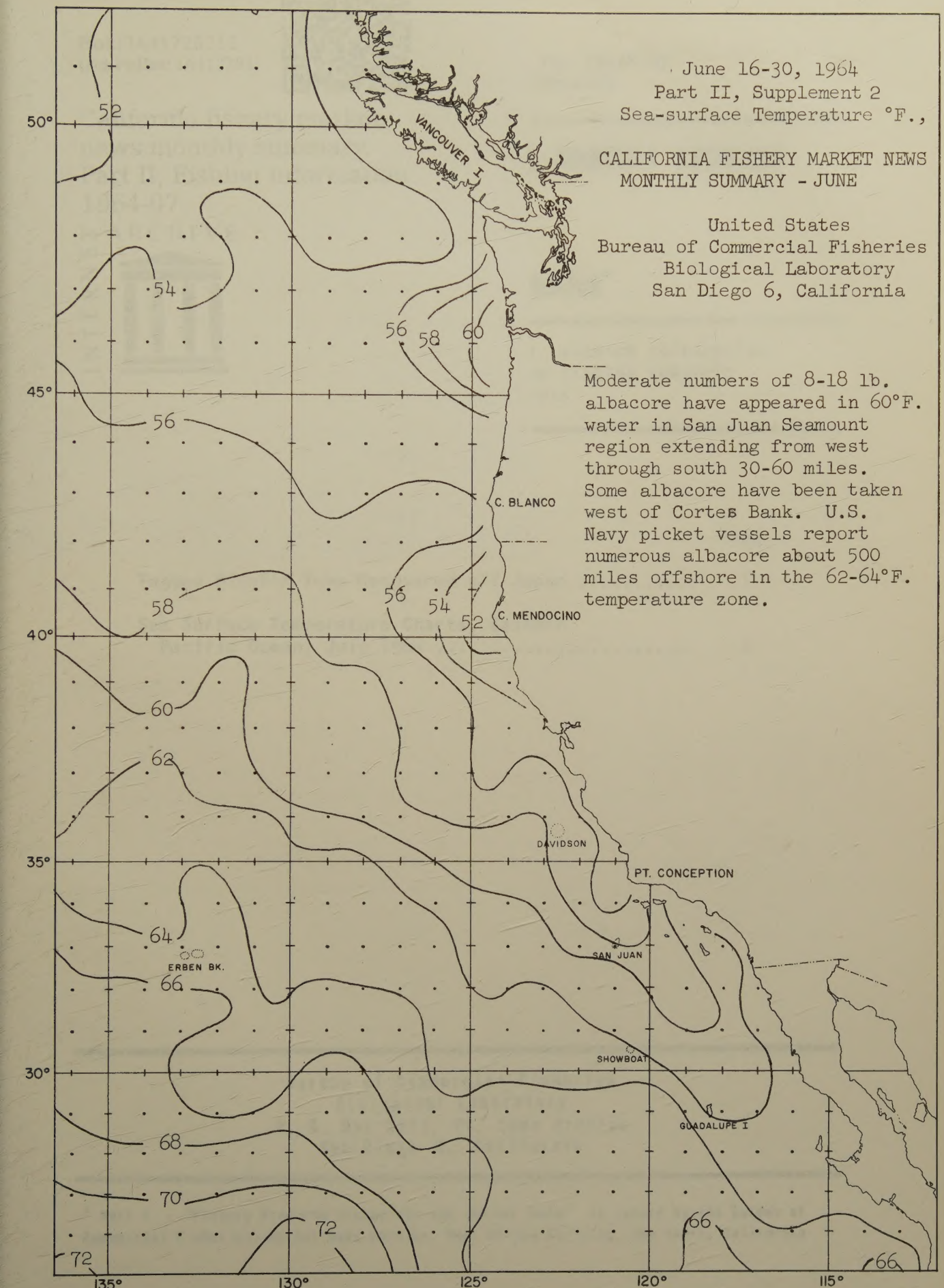

Moderate numbers of 8-18 lb. albacore have appeared in 60°F. water in San Juan Seamount region extending from west through south 30-60 miles. Some albacore have been taken west of Cortes Bank. U.S. Navy picket vessels report numerous albacore about 500 miles offshore in the 62-64°F. temperature zone.